

1. (Canceled).

2. (Canceled).

3. (Canceled).

4. (Canceled).

5. (Previously Presented): A multi-user talking system for providing a multi-user talking service among viewers of a content, comprising:

a content distribution apparatus and a multi-user talking control apparatus, each apparatus being connected to terminals of viewers through a network;

wherein said content distribution apparatus comprises:

request-for-viewing receiving means for receiving the request for viewing said content from a terminal of a viewer;

viewer management means for managing the request for viewing received by said request-for-viewing receiving means, associating said request with a transmission source address of said request for viewing; and

content distribution means for distributing said content to a transmission source address managed by said viewer management means, through said network;

and

wherein said multi-user talking control apparatus comprises:

request-for-participation receiving means for receiving a request for participation in multi-user talking, from a terminal of a viewer;

participant management means that manages a transmission source address of a request for participation received by said request-for-participation receiving means, when said transmission source address is managed by said viewer management means;

mixing means that receives, through said network, respective pieces of talking data from terminals of viewers who have transmission source addresses managed by said participant management means, and mixes said pieces of talking data received to generate multi-user talking data; and

multi-user talking data distribution means for distributing the multi-user talking data generated by said mixing means to transmission source addresses managed by said participant management means, through said network;

and

wherein said network is an IP network;

wherein said content distribution means converts said content into IP packets, adds transmission source addresses managed by said viewer management means to a header of each IP packet, and multicasts the IP packets onto said IP network; and

wherein said multi-user talking data distribution means converts the multi-user talking data generated by said mixing means into IP packets, adds transmission source addresses managed by said participant management means to a header of each IP packet, and multicasts the IP packets onto said IP network;

wherein said multi-user talking system further comprises:

a first relay for relaying data between said IP network and television broadcast, said first relay having means for assembling IP packets addressed to the first relay itself to restore a content and for broadcasting the restored content; and

a second relay for relaying data between said IP network and a telephone network, said second relay having means for assembling IP packets addressed to the second relay itself to restore multi-user talking data and for transmitting the restored multi-user talking data to a channel specified by a telephone number informed from said multi-user talking control apparatus, and means for converting talking data received by said channel into IP packets and for transmitting the IP packets to said multi-user talking control apparatus;

wherein said request-for-viewing receiving means comprises:

means for receiving a request for viewing from a viewer's terminal provided with an interface with said IP network through said IP network; and

means for receiving a request for viewing from a viewer's terminal provided with an interface with said telephone network through said telephone network;

wherein said viewer management means sets a transmission source address associated with a request for viewing received by said request-for-viewing receiving means, to an IP address of a transmission source of said request for viewing, when said request-for-viewing receiving means receives said request for viewing through said IP network, and to a telephone number of the transmission source of said request for viewing, when said request-for-viewing receiving means receives said request for viewing through said telephone network;

wherein said content distribution means uses an IP address of said first relay, as a transmission source address added to a header of each IP packet of said

content, in place of a telephone number included in the transmission source addresses managed by said viewer management means, when such a telephone number exists;

wherein said request-for-participation receiving means comprises:

means for receiving a request for participation from a viewer's terminal provided with an interface with said IP network through said IP network; and

means for receiving a request for participation including a telephone number from a viewer's terminal provided with an interface with said telephone network through said telephone network;

wherein said participant management means sets a transmission source address associated with a request for participation received by said request-for-participation receiving means, to an IP address of a transmission source of said request for participation, when said request-for-participation receiving means receives said request for participation through said IP network, and to a telephone number of the transmission source of said request for participation, when said request-for-participation receiving means receives said request for participation through said telephone network;

wherein said mixing means receives pieces of talking data through said network from viewer's terminals each having an IP address managed by said participant management means and from said second relay, when a telephone number is included in transmission source addresses of requests for participation managed by said participant management means, and mixes the received pieces of talking data to generate multi-user talking data;

wherein said multi-user talking data distribution means uses an IP address of said second relay, as an address added to a header of each IP packet of the multi-user talking data generated by said mixing means, in place of a telephone number included in the transmission source addresses of the requests for participation managed by said participant management means, when such a telephone number exists; and

wherein said multi-user talking control apparatus further comprises a number informing means for informing said second relay of a telephone number included in a request for participation, when a transmission source address of said request for participation received by said request-for-participation means is said telephone number.

6. (original) The multi-user talking system according to Claim 5, wherein: said viewer's terminal provided with the interface with said telephone network comprises:

receiving means for receiving said content broadcast by the television broadcast and for outputting the received content to a television broadcast display apparatus;

request-for-viewing transmitting means for transmitting a request, which includes a telephone number of a telephone set by an operator, for viewing said content, to said content distribution apparatus through said telephone network, before said receiving means receives said content; and

request-for-participation transmitting means for receiving a request for participation in multi-user talking from the operator while said receiving means is

receiving said content, and for transmitting the received request for participation to said multi-user talking control apparatus through said telephone network.

7. (original): The multi-user talking system according to Claim 5, wherein:

said viewer's terminal provided with the interface with said IP network comprises:

request-for-viewing transmitting means for transmitting a request for viewing said content, to said content distribution apparatus through said IP network;

content display means for assembling IP packets addressed to said content display means itself to restore said content, and for displaying the restored content on a display unit;

request-for-participation transmitting means for receiving a request for participation in multi-user talking from an operator while said content display means is displaying said content on said display unit, and for transmitting the received request for participation to said multi-user talking control apparatus through said IP network;

multi-user talking output means for assembling IP packets addressed to said multi-user talking output means itself to restore said multi-user talking data, and for outputting sound conforming to the restored multi-user talking data, to a sound output apparatus; and

talking data transmitting means for converting talking data conforming to sound inputted through a sound input apparatus into IP packets, and for adding an IP address of said multi-user talking control apparatus to a header of each IP packet, to transmits the IP packets onto said IP network.

8. (canceled)

9. (canceled).

10. (Previously Presented): A method of multi-user talking, which uses a computer for providing a multi-user talking service among viewers of a content, comprising:

a request-for-viewing receiving step of receiving a request for viewing said content from a terminal of a viewer;

a viewer management step of managing the request for viewing received in said request-for-viewing receiving step, associating said request with a transmission source address of said request for viewing;

a content distribution step of distributing said content to a transmission source address managed in said viewer management step;

a request-for-participation receiving step of receiving a request for participation in multi-user talking, from a terminal of a viewer;

a participant management step of managing a transmission source address of a request for participation received in said request-for-participation receiving step, when said transmission source address is managed in said viewer management step;

a mixing step of receiving respective pieces of talking data from terminals of viewers who have transmission source addresses managed in said participant management step, and mixing said pieces of talking data received to generate multi-user talking data; and

a multi-user talking data distribution step of distributing the multi-user talking data generated in said mixing step to transmission source addresses managed in said participant management step;

wherein in said request-for-viewing receiving step, said request for viewing is received from a viewer's terminal provided with an interface with an IP network, through said IP network, and received from a viewer's terminal provided with an interface with a telephone network, through said telephone network;

wherein in said viewer management step, a transmission source address that is associated with a request for viewing received in said request-for-viewing receiving step is set to an IP address of a transmission source address of said request for viewing, when said request for viewing is received through said IP network, and to a telephone number of the transmission source of said request for viewing, when said request for viewing is received through said telephone network;

wherein in said content distribution step, said content is converted to IP packets, and transmission source addresses managed in said viewer management step are added to a header of each IP packet, to multicast the IP packets onto said IP network, and, when a telephone number is included in the transmission source addresses managed in said viewer management step, then, an IP address of a first relay, which assembles IP packets addressed to the first relay itself to restore a content and broadcasts the content, is used in place of said telephone number as a transmission source address added to a header of each IP packet of said content;

wherein in said request-for-participation receiving step, a request for participation is received from a viewer's terminal provided with an interface with said IP network, through said IP network, and a request for participation including a



telephone number is received from a viewer's terminal provided with not an interface with said IP network but an interface with said telephone network, through said telephone network;

wherein in said participant management step, a transmission source address of a request for participation received in said request-for-participation receiving step is set to an IP address of a transmission source of said request for participation, when said request for participation is received through said IP network, and to a telephone number of the transmission source of said request for participation, when said request for participation is received through said telephone network;

wherein in said mixing step, pieces of talking data are received through said IP network from viewer's terminals each having an IP address managed in said participant management step, and the received pieces of talking data are mixed to generate multi-user talking data;

wherein in said mixing step, when a telephone number is included in transmission source addresses managed in said participant management step, pieces of talking data are received from viewer's terminals each having an IP address managed in said participant management step and from a second relay, and said pieces of talking data are assembled to generate multi-user talking data, wherein said second relay assembles IP packets addressed to the second relay itself to restore multi-user talking data and to transmit the restored multi-user talking data to a channel specified by a telephone number informed from said computer, and converts talking data received from said channel to IP packets to transmits the IP packets to said computer;

wherein in said multi-user talking data distribution step, the multi-user talking data generated in said mixing step is converted to IP packets, and the transmission source addresses managed in said participant management step are added to a header of each IP packet, to multicast the IP packets onto said IP network; and

wherein in said multi-user talking data distribution step, when a telephone number is included in the transmission source addresses managed in said participant management step, an IP address of said second relay is used in place of said telephone number, as an address added to a header of each IP packet of said multi-user talking data, and, when a transmission source address of a request for participation is said telephone number, then said telephone number is sent to said second relay.